

CLAIMS

1. A device for evenly applying heat to a plane surface of a work piece by means of a heated gas, wherein a nozzle bottom (5) comprising nozzles (3) is provided, which nozzle bottom (5) is arranged parallel to the plane surface and comprises apertures for the nozzles, characterised in that the nozzles (3) are of tubular shape; in that a deflection device (6) is arranged in them which provides spiral-shaped guidance to the gas; and in that the nozzles (3) are arranged perpendicular in relation to the surface (2) to which heat is to be applied.
2. The device according to claim 1, characterised in that each deflection device (6) is made up of one metal strip or several metal strips which are each made up of one or several metal strips being evenly distributed around the circumference of the nozzle (3), and being spiral-shaped within the nozzle (3), wherein the width of said metal strip(s) matches/match the radius of the nozzle (3), and in that the spiral-shaped arrangement in n metal strips extends over at least  $360/n^\circ$ .
3. The device according to claim 1 or 2, characterised in that the deflection device (6) comprises at least two flow channels of spiral-shaped arrangement.

4. The device according to any one of the preceding claims,  
characterised in that  
the nozzles (3) are arranged so as to be equidistant on straight lines which are in a perpendicular position in relation to each other, and the spiral-shapes of the nozzles (3) which are arranged side-by-side on a common straight line are arranged in opposite directions.
5. The device according to any one of the preceding claims,  
characterised in that  
the deflection device (6) is at least one metal strip which extends in a spiral-shape on the axis of the nozzle (3).
6. The device according to any one of the preceding claims,  
characterised in that  
the deflection device (6) extends along the entire length of a nozzle (3).
7. The device according to any one of the preceding claims,  
characterised in that  
the nozzles (3) are arranged on the outflow side of the nozzle bottom (5).